

# Karthik Panchanathan

## Curriculum Vitae

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University of Missouri  
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### **EDUCATION**

2010          Ph.D. Anthropology, UCLA  
2001          M.A. Biological Anthropology, UCLA  
1997          B.S. Biology, B.A. Cultural Anthropology, UCLA

### **EMPLOYMENT**

2012–          Assistant Professor  
                 Department of Anthropology  
                 University of Missouri

2011–2012    Visiting Assistant Professor  
                 Department of Anthropology  
                 Pomona College

2010–2011    Adjunct Faculty  
                 Santa Monica College

1998–1999    Consultant  
                 Deloitte and Touche, LLP

1997–1998    Investment Analyst  
                 T. Rowe Price

## PUBLICATIONS

## Peer-Reviewed Articles and Book Chapters

- 2016 Karthik Panchanathan and Willem E. Frankenhuis. “The evolution of sensitive periods in a model of incremental development.” *Proceedings of the Royal Society B* 283 (2016). DOI 20152439.
- 2016 Willem E. Frankenhuis, Karthik Panchanathan, and Jay Belsky. “A Mathematical Model of the Evolution of Individual Differences in Developmental Plasticity Arising through Parental Bet-hedging.” *Developmental Science* 19 (2016): 251–274.
- 2016 Willem E. Frankenhuis, Karthik Panchanathan, and Daniel Nettle. “Cognition in harsh and unpredictable environments.” *Current Opinion in Psychology* 7 (2016): 76–80.
- 2014 Karthik Panchanathan, Sarah Mathew, and Charles Perreault. “Explaining group-level traits requires distinguishing process from product.” *Behavioral and Brain Sciences* 37 (2014): 269–270.
- 2013 Willem E. Frankenhuis, Karthik Panchanathan, and H. Clark Barrett. “Bridging developmental systems theory and evolutionary psychology using dynamic optimization.” *Developmental Science* 16 (2013): 584–598.
- 2013 Karthik Panchanathan, Willem E. Frankenhuis, and Joan B. Silk. “The bystander effect in an  $N$ -person dictator game.” *Organizational Behavior and Human Decision Processes* 120 (2013): 285–297.
- 2011 Daniel Nettle, Karthik Panchanathan, Tage Rai, and Alan Page Fiske. “The Evolution of Giving, Sharing, and Lotteries.” *Current Anthropology* 52 (2011): 747–756.
- 2011 Willem E. Frankenhuis and Karthik Panchanathan. “Individual differences in developmental plasticity may result from stochastic sampling.” *Perspectives on Psychological Science* 6 (2011): 336–347.
- 2011 Willem E. Frankenhuis and Karthik Panchanathan. “Balancing sampling and specialization: An adaptationist model of incremental development.” *Proceedings of the Royal Society B* 278 (2011): 3558–3565.

- 2011 Karthik Panchanathan. "Two wrongs don't make a right: The initial viability of different assessment rules in the evolution of indirect reciprocity." *Journal of Theoretical Biology* 277 (2011): 48–54.
- 2010 Karthik Panchanathan, Willem E. Frankenhuis, and H. Clark Barrett. "Development: Evolutionary ecology's midwife." *Behavioral and Brain Sciences* 33 (2010): 105–106.
- 2005 Karthik Panchanathan and Robert Boyd. "Human cooperation: Second-order free riding problem solved? (reply)." *Nature* 437 (2005): E8–E9.
- 2004 Karthik Panchanathan and Robert Boyd. "Indirect reciprocity can stabilize cooperation without the second-order free rider problem." *Nature* 432 (2004): 499–502.
- 2003 Karthik Panchanathan and R. Boyd. "A Tale of Two Defectors: The Importance of Standing in the Evolution of Indirect Reciprocity." *Journal of Theoretical Biology* 224 (2003): 115–126.

### **Working Papers**

Karthik Panchanathan. "The evolution of prestige-biased transmission."

### **Under Review or Revision**

Karthik Panchanathan and Eric Alden Smith. "Evolutionary pathways to group cooperation: Reputation, reciprocity, and signaling." *Evolutionary Anthropology*.

### **Encyclopedia Entries**

in press Karthik Panchanathan. "Game Theory." *Theory in Social and Cultural Anthropology*. Eds. Jon R. McGree and Richard L. Warms.

### **Book Reviews**

2011 Karthik Panchanathan. "George Price, the Price Equation, and Cultural Group Selection." A Review of Oren Harman's *The Price of*

*Altruism: George Price and the Search for the Origins of Kindness. Evolution and Human Behavior* 32 (2011): 368–371.

- 2007 Karthik Panchanathan and Andreas Wilke. “Are the readers of *Evolution and Human Behavior* interesting people?” A review of Hanna Kokko’s *Modelling for field biologists and other interesting people. Evolution and Human Behavior* 28 (2007): 448–450.

### **Popular writing**

- 2007 Siamak T. Naficy and Karthik Panchanathan. “Buffy the Vampire Dater.” *The Psychology of Joss Whedon: An Unauthorized Exploration of Buffy, Angel, and Firefly*. Ed. Joy Davidson. Dallas: BenBella Books, 2007. Pages 141–153.

### **Student Publications**

- 2014 *The Science of Fiction: Evolutionary Explanations of Hypothetical Human Behavior, Volume 5.*
- 2013 *The Science of Fiction: Evolutionary Explanations of Hypothetical Human Behavior, Volume 4.*
- 2012 *The Science of Fiction: Evolutionary Explanations of Hypothetical Human Behavior, Volume 3.*
- 2010 *The Science of Fiction: Evolutionary Explanations of Hypothetical Human Behavior, Volume 2.*
- 2009 *The Science of Fiction: Evolutionary Explanations of Hypothetical Human Behavior, Volume 1.*

## TEACHING AND MENTORING

### Instructor

- 2015      Human Nature, University of Missouri (undergraduate)  
Anthropological Statistics, University of Missouri (graduate)  
How to Survive Grad School, University of Missouri (graduate)  
Capstone Seminar, University of Missouri (undergraduate)  
Epigenetics Seminar, University of Missouri (undergraduate)
- 2014      Human Nature, University of Missouri (undergraduate)  
Capstone Seminar, University of Missouri (undergraduate)  
Bayesian Statistics, University of Missouri (graduate)
- 2013      Human Nature, University of Missouri (undergraduate)  
Data Analysis, University of Missouri (undergraduate)  
Cultural Anthropology, University of Missouri (undergraduate)  
Cultural Dynamics, University of Missouri (graduate)
- 2012      Economic Anthropology, University of Missouri (undergraduate)  
Biological Anthropology, Pomona College (undergraduate)  
Evolution of Culture and Society, Pomona College (undergraduate)  
The Origins of Virtue, Pomona College (undergraduate)
- 2011      Biological Anthropology, Pomona College (undergraduate)  
Economic Anthropology, Pomona College (undergraduate)
- 2010      Physical Anthropology, Santa Monica college (undergraduate)  
Evolution and the Levels of Selection, UCLA (undergraduate)  
The Origins of Virtue, UCLA (undergraduate)
- 2009      The Origins of Virtue, UCLA (undergraduate)

### Graduate Students

Kotrina Kajokaite (University of California, Los Angeles)  
Gretchen Perry (University of Missouri)

**Teaching Assistant**

2010	The Evolution of Life, UCLA
2009	The Evolution of the Cosmos, UCLA The Evolution of Life, UCLA
2008	The Evolution of the Cosmos, UCLA Human Evolution, UCLA Human Evolution, UCLA
2007	Primate Behavior, UCLA Principles of Human Evolution, UCLA Human Evolution, UCLA
2006	Primate Behavior, UCLA

## PROFESSIONAL ACTIVITIES

### University of Missouri Service

- 2014– Chair, Lectures Committee, Department of Anthropology
- 2014– Chair’s Advisory Committee, Department of Anthropology
- 2014– Department representative, Curriculum, Instruction & Advising Committee, University of Missouri
- 2013– Honors Director, Department of Anthropology
- 2013– Chair, Website Committee, Department of Anthropology
- 2013– Member, Evolutionary Studies, University Missouri
- 2013– Student Assessment Committee, Department of Anthropology

### Professional Service

- 2015 Conference Organizer, Annual Meeting of the Human Behavior and Evolution Society (HBES)
- 2013– Consulting Editor, *Evolution and Human Behavior*

### Invited Workshops

- 2015 “Complexity and Evolution: A New Synthesis for Economics.” Ernst Strungmann Forum chaired by David Sloan Wilson and Alan Kirman. Frankfurt, Germany.
- 2014– “Evolution of Sustainability.” NIMBioS Working Group organized by Tim Waring, Marco Janssen, and Karolina Safarzyńska. Knoxville, Tennessee.
- 2009 “Workshop on Dynamics in the Human Sciences: Cognitive, Behavioral, and Social Complexity.” NSF-ANR Workshop. Reims, France.

2004 “Analyzing pattern and process in human cultural diversity.” NCEAS Working Group organized by Michael Hochberg. Santa Barbara, California.

**Ad hoc journal reviewer**

*Acta Biotheoretica, Adaptive Behavior, Animal Behaviour, Behavioral and Brain Sciences, Behavioral Ecology, Behavioral Ecology and Sociobiology, Biology and Philosophy, Biology Letters, Computational and Mathematical Organization Theory, Current Directions in Psychological Science, Ecology Letters, Evolution and Human Behavior, Evolutionary Psychology, Human Nature, Journal of Evolutionary Biology, Journal of Evolutionary Psychology, Journal of Human Evolution, Journal of Personality and Social Psychology, Journal of Theoretical Biology, Philosophical Transactions of the Royal Society B, PLoS Computational Biology, PLoS One, Proceedings of the National Academy of Sciences, Proceedings of the Royal Society B, Psychological Review, Social Psychology, Theoretical Population Biology*



## PRESENTATIONS

### Invited talks

- 2015 Genes, culture, and evolution. University of Missouri.
- 2015 The evolution of cooperation, or why we are (sometimes) nice to each other. University of Missouri.
- 2014 The evolution of developmental sensitivity. London School of Hygiene and Tropical Medicine.
- 2013 The developmental, cultural, and evolutionary dynamics of social behavior. University of California, Los Angeles.
- 2012 Culture and the evolution of social behavior. Clarkson University, Potsdam, New York.
- 2012 Reputation and the Evolution of Large-Scale Cooperation. University of Missouri, Columbia, Missouri.
- 2010 The Bystander Effect in a Multi-Player Dictator Game. Society for the Advancement of Behavioral Economics (SABE) Annual Conference, San Diego, California.
- 2009 Learning to Live: A model integrating evolutionary and developmental adaptation. Interdisciplinary Judgment and Decision Making Mini-Conference, Clarkson University, Potsdam, New York.
- 2009 The Bystander Effect in a Multi-Player Dictator Game. Interdisciplinary Judgment and Decision Making Mini-Conference, Clarkson University, Potsdam, New York.
- 2009 Divided We Stand: The Evolution of Altruism. Exploring Darwin, Palomar College, San Marcos, California.
- 2009 Complexifying Cooperation. Workshop on Dynamics in the Human Sciences: Cognitive, Behavioral, and Social Complexity, Reims, France.
- 2009 Some facts about social preferences, or why we're sometimes nice and sometimes not. Continuing Medical Education, Tarzana Hospital, Los Angeles, California.

- 2009 Quantifying the Bystander Effect in a Multi-Player Dictator Game. Center for Behavior, Evolution, and Culture. University of California, Los Angeles.
- 2008 Divided We Stand: Understanding the Evolution of Cooperation. Exploratorium, San Francisco, California.
- 2008 Darwinism and the Paradox of Altruism. Anthropology Lecture Series. Pierce College, Los Angeles, California.
- 2008 Reputation, reciprocity, and large-scale cooperation. Santa Fe Institute, New Mexico.
- 2008 Sex differences in mate choice: adaptation or inertia? Comment on “It Takes Two: Sexual Strategies and Game Theory.” Annual Meeting for the American Philosophical Association Pacific Division, Pasadena.
- 2008 Reputation, reciprocity, and large-scale cooperation. IGERT Program in Evolutionary Modeling, University of Washington.
- 2007 Reputation and the evolution of cooperation. “Exploring Darwin Conference at Palomar College.
- 2007 Evolutionary models and puzzle of altruism. Michigan State University.
- 2006 Indirect reciprocity and large-scale cooperation. Institute of Evolutionary Biology seminar series, University of Edinburgh.
- 2004 Punishment and the evolution of cooperation. “The challenge of cooperation: from bacteria to humans” seminar series. Department of Agronomy and Range Science, University of California, Davis.
- 2002 Social networks and the evolution of indirect reciprocity. Social Networks Brown Bag. University of California, Irvine.
- 2001 The evolution of indirect reciprocity. Developmental and Evolutionary Psychology (DEVO) seminar series, University of California, Santa Barbara.

## Conference Presentations

- 2010 The evolution of prestige-biased transmission. Annual meeting of the Human Behavior and Evolution Society, University of Oregon, Eugene.
- 2009 Is Reputation the Proximate Motivation Underlying Pro-Social Behavior? Annual meeting of the Human Behavior and Evolution Society, California State University, Fullerton.
- 2009 The Bystander Effect in a Multi-Player Dictator Game. European Human Behaviour and Evolution Association Conference, St. Andrews, Scotland.
- 2008 Quantifying the Bystander Effect. Evolution, Mind, and Behavior Conference, UC Santa Barbara, California.
- 2008 The evolution of prestige-biased transmission. European Human Behaviour and Evolution Conference, Montpellier, France.
- 2008 Cultural evolution and the prestige-biased transmission. Evolution, Ecology, Mind and Behavior Conference, Cal Poly, San Luis Obispo.
- 2007 Two wrongs don't make a right? The initial viability of different reputation-assessment norms in indirect reciprocity. Annual meeting of the Human Behavior and Evolution Society, College of William and Mary, Virginia.
- 2006 Why indirect reciprocity isn't a good explanation of large-scale cooperation. Annual meeting of the Human Behavior and Evolution Society, University of Pennsylvania.
- 2004 Does punishment have to be costly? Indirect reciprocity can stabilize cooperation without the second-order free rider problem. 16th annual meeting of the Human Behavior and Evolution Society, Free University, Berlin.
- 2003 Indirect reciprocity and the evolution of social norms. Cooperation in Primates and Human: Mechanisms & Evolution, University of Göttingen, Germany.
- 2003 Ostracism can stabilize cooperation without the second-order free rider problem. Human Biology: an Evolutionary Perspective, University of Montpellier, France.

- 2003 Freemasons, the Kula Ring and eBay: group size, cultural workarounds and generalized exchange. Annual meeting of the Human Behavior and Evolution Society, University of Nebraska, Lincoln.
- 2003 Why direct reciprocity is common but indirect reciprocity is rare. UCLA-UCSB Quarterly Meeting. University of Los Angeles, California.
- 2002 Social networks and the evolution of indirect reciprocity. Annual meeting of the Human Behavior and Evolution Society, Rutgers University, New Jersey.
- 2001 Reputation, indirect reciprocity, and the evolution of cooperation. Annual meeting of the Human Behavior and Evolution Society, University College London.

## REFERENCES

Robert Boyd (PhD Advisor)  
School of Human Evolution and Social Change  
Arizona State University  
robert.t.boyd@gmail.com

H. Clark Barrett  
Department of Anthropology  
University of California, Los Angeles  
barrett@anthro.ucla.edu

Martin Daly  
Department of Psychology, Neuroscience & Behaviour  
McMaster University  
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Daniel Nettle  
Centre for Behaviour & Evolution  
Newcastle University  
daniel.nettle@ncl.ac.uk

Publications by authors named "Karthik Panchanathan". 14 Publications. Page 1 of 1. Willem E Frankenhuis Karthik Panchanathan Andrew G Barto. Behav Processes 2019 Apr 13;161:94-100. Epub 2018 Feb 13. Karthik Panchanathan is a professor in the Anthropology department at University of Missouri - Columbia - see what their students are saying about them or leave a rating yourself. Dr. Panchanathan was easily one of my favorite professors during my time in undergrad. His classes were always very discussion based but it never felt forced. Lectures were often very insightful and tests never threw any curveballs. Department of Anthropology. Karthik Panchanathan. Karthik Panchanathan. University of Missouri | Mizzou Department of Anthropology. PhD. Karthik Panchanathan. Indirect reciprocity models are meant to correspond to simple moral systems, in which individuals assess the interactions of third parties in order to condition their cooperative behavior. Despite the staggering number of possible assessment rules in even the simplest of these models, previous research suggests that only a handful are evolutionarily Karthik Panchanathan is on Facebook. Join Facebook to connect with Karthik Panchanathan and others you may know. Facebook gives people the power to share... Karthik Panchanathan is on Facebook. To connect with Karthik, sign up for Facebook today. Log In. or. Sign Up. About Karthik Panchanathan. Education. Sri Sai Ram Engg College.